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COMMUNICATION SYSTEM AND METHOD FOR COMMUNICATION

Abstract of the Disclosure

A communication system (100) including at least one central (101) and a number of remote units (103) is provided which utilise a shared spectrum (203) for simultaneous communication in the uplink and downlink direction. According to the invention different transmission schemes are used in the two directions for reducing the cross interference between remote units (103) uplinking and remote units (103) downlinking in the shared spectrum. The different transmission schemes are characterised by one (401) having the signal energy spread in preferably both the time and frequency domain whereas the other (403) transmission scheme is characterised by having signal energy concentrated in both the frequency and time domain.